

## Claims

- [c1] What is claimed is:
1. A portable electronic device comprising:
    - electronic components providing at least a function of the portable electronic device;
    - a ground pad electrically connected to the electronic components;
    - an electrically conductive material electrically connected to the ground pad;
    - a Liquid Crystal Display (LCD) module for displaying output according to the electronic components;
    - a light guide for backlighting the LCD module, the light guide comprising:
      - a translucent plate having a first major face adjacent to the LCD module, and a second major face adjacent to the electronic components; and
      - a metallic shield directly disposed on the second major face of the translucent plate and electrically connected to the conductive material; and
      - a light source controlled by the electronic components to emit light into the translucent plate of the light guide;
    - whereby the light guide shields the LCD module from electrostatic discharge of the electronic components, and serves as a shield for electromagnetic radiation.
  - [c2] 2. The portable electronic device of claim 1 wherein the translucent plate has a plurality of recesses formed into the second major face to scatter internally reflected light, and the metallic shield reflects the scattered light to exit the first face of the translucent plate.
  - [c3] 3. The portable electronic device of claim 2 further comprising at least a reflecting strip adhered to the translucent plate for directing light from the light source into the translucent plate.
  - [c4] 4. The portable electronic device of claim 2 wherein the light source is a Light Emitting Diode (LED).
  - [c5] 5. The portable electronic device of claim 1 wherein the function of the electronic components is that of a mobile phone or a personal digital assistant (PDA).

- [c6] 6. The portable electronic device of claim 1 wherein the electrically conductive material is an electrically conductive sponge.
- [c7] 7. A method for providing electrical shielding comprising:  
providing electronic components that provide functionality associated with the portable electronic device;  
providing a ground pad electrically connected to the electronic components;  
providing an electrically conductive material electrically connected to the ground pad;  
providing an LCD module for displaying output according to the electronic components;  
providing a translucent plate having a first major face adjacent to the LCD module, and a second major face adjacent to the electronic components; and  
disposing a metallic shield onto the second major face of the translucent plate, the metallic shield electrically connected to the electrically conductive material.
- [c8] 8. The method of claim 7 wherein the metallic shield is disposed onto the second major face of the translucent plate by a metal sputtering process.
- [c9] 9. The method of claim 7 wherein the metallic shield grounds and reflects electromagnetic radiation.
- [c10] 10. The method of claim 7 wherein the metallic shield grounds electrostatic discharge originating from the electronic components, dissipating the electrostatic discharge to the ground pad through the conductive material.
- [c11] 11. The method of claim 7 wherein the electrically conductive material is an electrically conductive sponge.